

BCM SCHOOL BASANT AVENUE DUGRI, LUDHIANA

CLASS 7

Ch-physical and chemical changes

Ch-Respiration

DATE -Oct 28,2024

Q 1 Test tubes P and Q contain equal amounts of aqueous hydrochloric acid. On adding magnesium to test tube P and sodium carbonate to test tube Q, which of the following observations will be observed?

- i) The gas evolved in both the test tubes will extinguish a burning splinter.**
 - ii) The gas evolved in a test tube Q will extinguish a burning splinter with a pop sound.**
 - iii) The gas evolved in test tube P will turn lime water milky.**
 - iv) The gases evolved in test tubes P and Q are H₂ and CO₂, respectively.**
- a) i), ii) and iii)**
 - b) i) and iv)**
 - c) i), iii) and iv)**
 - d) iii) and iv)**

Q2 Sometimes, when we do heavy exercise, anaerobic respiration takes place in our muscle cells. What is produced during this process?

- (a) alcohol and lactic acid**
- (b) alcohol and CO₂**
- (c) lactic acid and CO₂**
- (d) lactic acid only**

Q 3 Assertion/Reason

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

i)Assertion (A) : Formation of rust is a chemical change.

Reason (R) : For formation of rust, iron must be exposed to air and water.

Q4 Assertion- during the exercise food break down is by anaerobic respiration.

Reason- when the supply of oxygen to our muscle cell is insufficient anaerobic respiration occurs.

Q 5 figure 10.1 carefully and answer the following questions.

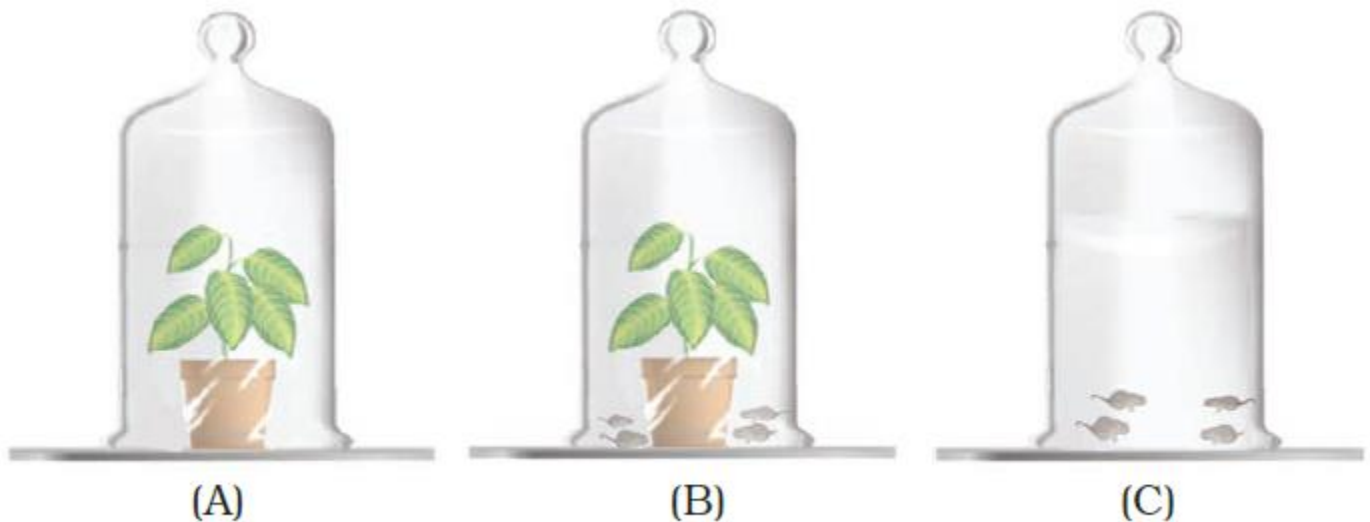


Fig. 10.1

(a) In which jar, will the amount of CO₂ be the highest and why?

(b) In which jar, will the amount of CO₂ be the lowest and why?

Q 6 Insects and leaves of a plant have pores through which they exchange gases with the atmosphere. Can you write two points of differences between these pores with respect to their position, number and extension into the body?

7. Give one example of a chemical reaction for each of the following :

(a) A colour change is observed.

(b) A gas has evolved.

(c) Sound is produced.

8. How can you say that ripening of a fruit is a chemical change?

9. Draw and label the respiratory system in humans.

10. CASE STUDY

A cleaned magnesium ribbon about 3-4 cm long is burnt using a burner by holding it with a pair of tongs and the ash so formed is collected in a watch-glass. The magnesium ribbon is kept away as far as possible from eyes.

1) What is the colour of the powder collected in a watch glass ?

2) Which type of change occurs in the above experiment ?

3) What is the chemical name of the powder collected in a watch glass ?

4) Which of the following determines the occurrence of chemical reaction?